

What is claimed is:

1 1. A method for playing a digital audio recording at a speed other than 1X, the
2 method comprising:

3 retrieving stored digital audio information represented in a plurality
4 of audio frames;

5 ranking at least a portion of said plurality of audio frames according
6 to an energy content of said portion of said audio frames;

7 deleting from said portion of said plurality of audio frames having
8 least energy content in accordance with said ranking step; and,

9 selecting remaining ones of said portion of audio frames following said
10 deleting step to form an audio trick mode playback signal.

1 2. The method according to claim 1, wherein said selecting step further
2 comprises concatenating said remaining audio frames to form said audio trick
3 mode playback signal.

1 3. The method according to claim 1, wherein said deleting step further
2 comprises deleting from said portion of said plurality of audio frames a percentage
3 of said plurality in accordance with a selected trick mode playback speed.

1 4. A method for playing audio programming accompanying a video presentation
2 during trick mode playback at a speed other than 1X, the method comprising:

3 retrieving information representing at least a video portion and a
4 corresponding audio portion of said video presentation, said audio portion
5 representing audio information in a plurality of audio frames;

6 ranking at least a portion of said plurality of audio frames according
7 to an energy content of said portion of said audio frames; and,

8 selecting ones of said portion of audio frames based on said ranking
9 step to form an audio trick mode playback signal.

1 5. The method according to claim 1, wherein said ranking step further
2 comprises calculating said energy content of at least a portion of said plurality of
3 audio frames.

1 6. The method according to claim 4, wherein said selecting step further
2 comprises removing a portion of said plurality of audio frames in accordance with a
3 selected video trick mode speed.

1 7. The method according to claim 5, wherein said selecting step further
2 comprises removing said portion of said plurality of audio frames having least
3 energy content in accordance with said calculating step.

1 8. The method according to claim 7, wherein said selecting step further
2 comprises concatenating audio frames remaining having removed said audio frames
3 having least energy content to form said trick mode playback signal.

1 9. The method according to claim 6, wherein said removing step further
2 comprises increasing a size of said portion of audio frames to be removed to
3 facilitate a faster video trick mode playback speed.

1 10. The method according to claim 5, wherein said calculating step further
2 comprises summing magnitude values representing instantaneous voltage values for
3 at least one audio frame.

1 11. The method according to claim 5, wherein said calculating step further
2 comprises summing magnitudes of values in frequency bins within a frequency
3 range for at least one audio frame.

1 12. An apparatus for playing audio programming associated with video
2 programming during trick mode playback at other than 1X speed, comprising:

3 a storage medium reader for retrieving from a storage medium information
4 representing at least a video portion and a corresponding audio portion of a
5 program, said audio portion representing audio information in a plurality of
6 audio frames; and,

7 an audio processor for ranking at least a portion of said plurality of audio
8 frames according to an energy content of said portion of said audio frames,
9 and forming an audio trick mode playback signal from selected ones of said
10 portion of audio frames, in accordance with said ranking of said at least a
11 portion of said audio frames.

1 13. The apparatus according to claim 12, wherein said audio processor
2 comprising a calculating means for calculating said energy content of at least a
3 portion of said plurality of audio frames.

1 14. The apparatus according to claim 13, wherein said audio processor further
2 comprises means for selectively removing from said audio portion, a percentage
3 portion of said plurality of audio frames in accordance with a selected video trick
4 mode playback speed.

1 15. The apparatus according to claim 14, wherein said removing means for
2 selectively removes from said plurality of audio frames said percentage portion of
3 said plurality of audio frames having a least amount of said calculated energy
4 content.

1 16. The apparatus according to claim 15, wherein said audio processor
2 concatenates audio frames remaining after said removal of said percentage portion
3 of said plurality of audio frames to form said trick mode playback signal audio trick
4 mode playback signal.

1 17. The apparatus according to claim 14, wherein said removing means
2 increases said percentage portion of audio frames to be removed to facilitate a
3 faster trick mode playback speed.

1 18. The apparatus according to claim 13, wherein said calculating means
2 calculates said energy content by determining a sum of absolute values of
3 magnitudes of an instantaneous value representing the voltage for at least one
4 audio frame.

1 19. The apparatus according to claim 13, wherein said calculating means
2 calculates said energy content by determining a sum of magnitudes of values in
3 frequency bins within a frequency range for at least one audio frame.